

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) An antenna comprising:
an antenna element ~~that is formed in~~ having a substantially spherical shape;
a conductive rod that penetrates through the antenna element and that is electrically ~~conducted~~ connected to the antenna element; and
a conductive circular plate that is disposed on a base end side of the conductive rod ~~so as to be~~, substantially orthogonal to the conductive rod, wherein the antenna has a feeding point ~~is provided at a portion located~~ where the base end side of the conductive rod and the conductive circular plate intersect each other.
2. (Currently Amended) The antenna according to claim 1, wherein the antenna element is a hollow spherical shell ~~formed~~ of conductive metal.
3. (Currently Amended) The antenna according to claim 2, wherein the spherical shell ~~is formed with~~ includes a slit substantially parallel to an axial direction of the conductive rod.
4. (Currently Amended) The antenna according to claim ~~1~~2, wherein the spherical shell is a conductive layer ~~that is formed~~ on an outer circumferential surface of a support body ~~formed~~ of an insulating material.
5. (Currently Amended) The antenna according to claim 4, wherein the support body is a sphere of synthetic resin ~~on~~ having a surface ~~of~~ on which a plated conductive layer is ~~formed by plating~~ disposed.
6. (Currently Amended) The antenna according to claim ~~4 or 5~~4, wherein the conductive layer ~~is formed with~~ includes a slit substantially parallel to an axial direction of the conductive rod.
7. (Currently Amended) The antenna according to claim 1, ~~wherein~~ including a plurality of antenna elements ~~are~~ fitted to the conductive rod.

8. (Currently Amended) The antenna according to claim 1 or 7, wherein including an insulating bushing is fitted at a substantially central portion of the conductive circular plate, and wherein the conductive rod is provided upright in a central opening of the insulating bushing.

9. (Currently Amended) The antenna according to claim 1 or 7, wherein including a connector sleeve is linked or fitted on a surface of the conductive circular plate on a side opposite to a surface thereof of the conductive circular plate on which the conductive rod is provided upright located, wherein the connector sleeve is connected to a connector of a coaxial cable, wherein a core wire of the coaxial cable is connected to the conductive rod, while and a shield wire thereof of the coaxial cable is connected to the conductive circular plate.

10. (Currently Amended) The antenna according to claim 1 or 7, wherein the antenna element is slidably fitted to on the conductive rod, and wherein also that distance from the conductive circular plate to the antenna element can be changed.

11. (Currently Amended) An antenna comprising a reflecting plate formed in having a parabolic shape and a primary radiator fitted to at a focus of the reflecting plate, wherein the primary radiator comprises:

~~an~~ the antenna element that is formed in the having a substantially spherical shape; ~~the~~ a conductive rod that penetrates through the antenna element and that is electrically conducted connected to the antenna element; and
~~the~~ the conductive circular plate that is disposed on a base end side of the conductive rod ~~so as to be~~, substantially orthogonal to the conductive rod.

12. (Currently Amended) An antenna comprising a dielectric lens and ~~the~~ a primary radiator fitted to at a focus of the dielectric lens, wherein the primary radiator comprises:

~~the~~ an antenna element that is formed in the having a substantially spherical shape; ~~the~~ a conductive rod that penetrates through the antenna element and that is electrically conducted connected to the antenna element; and
~~the~~ the conductive circular plate that is disposed on the base end side of the conductive rod ~~so as to be~~, substantially orthogonal to the conductive rod.

13. (New) The antenna according to claim 5, wherein the conductive layer includes a slit substantially parallel to an axial direction of the conductive rod.

14. (New) The antenna according to claim 7, including an insulating bushing fitted at a substantially central portion of the conductive circular plate, wherein the conductive rod is upright in a central opening of the insulating bushing.

15. (New) The antenna according to claim 7, including a connector sleeve linked or fitted on a surface of the conductive circular plate on a side opposite to a surface of the conductive circular plate on which the conductive rod is located, wherein the connector sleeve is connected to a connector of a coaxial cable, a core wire of the coaxial cable is connected to the conductive rod, and a shield wire of the coaxial cable is connected to the conductive circular plate.

16. (New) The antenna according to claim 7, wherein the antenna element is slidably fitted on the conductive rod so that distance from the conductive circular plate to the antenna element can be changed.